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RAW SEQUENCE LISTING

DATE: 02/28/2002

PATENT APPLICATION: US/10/027,801

TIME: 10:23:54

Input Set : N:\Crf3\RULE60\10027801.raw.txt

Output Set: N:\CRF3\02282002\J027801.raw

1 <110> APPLICANT: Swanson, Ronald V.
 2 Feldman, Robert A.
 3 Schleper, Christa
 4 <120> TITLE OF INVENTION: NUCLEIC ACIDS AND PROTEINS FROM CENARCHAEUM SYMBIOSUM
 5 <130> FILE REFERENCE: DCORP.002A
 6 <140> CURRENT APPLICATION NUMBER: 10/027,801
 7 <141> CURRENT FILING DATE: 2001-12-21
 8 <150> PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: 09/408,020
 W--> 9 <151> PRIOR FILING DATE: EARLIER FILING DATE: 1999-09-29
 10 <160> NUMBER OF SEQ ID NOS: 123
 11 <170> SOFTWARE: FastSEQ for Windows Version 3.0
 13 <210> SEQ ID NO: 1
 14 <211> LENGTH: 32998
 15 <212> TYPE: DNA
 16 <213> ORGANISM: Cenarchaeum symbiosum
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 28 <221> NAME/KEY: CDS
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 37 <222> LOCATION: (28065)...(29483)
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 41 ggtcttgc ttgtcattt ttgcctgtca cttggcgtgc tgccccgact ggcactggac 180
 42 gcagatctcg tctatgttgt ctatcgaggt gtacttttg gactggtcaa agccgaagcc 240
 43 gccgtcctt ggtccaaacc tgaagcggtc agggccgtta tgccttaatt atctttgcgg 300
 44 tcggggcggg gcccgttctg ccggcgaggag ccccccttga gggcgtccc cggtcggt 360

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|----|--|------|
| 45 | tcccacaggt gcatgctgcc cctgatcata aacgagccga ctatgattgc tacaagcccg | 420 |
| 46 | ccccactatca gtataaacag cctagccacg ccccccattc tgcccatgcg tgtaatatgc | 480 |
| 47 | tgcacctgta aacaaacatt gcgcggggca tggccgtcc ggacagacag aactgcccatt | 540 |
| 48 | gagacaggta cctgcgggccc ggttaagctac attaatttat cacccccccac gggcgggccc | 600 |
| 49 | catgagcagg accaagagaa taatcatctg ggcatccata ctggcgggg ggataatcta | 660 |
| 50 | ctttctcgta cagggcgaga ttgccagaaa tgtattgtcc tgagaacaga agccatgcag | 720 |
| 51 | caactgcccgg atcgtttttc aggtacctac tgggctttt ggagttcggt gatcaaaagc | 780 |
| 52 | ggtacaggtt ttctatacat gccagtctt gctggaaaaa taaattgaag atcggcgat | 840 |
| 53 | cctatctacg aggcctgtcc tgctttcac ttgactagcc ggagtacttc gtctgcaatt | 900 |
| 54 | tctgtatagc taggcattta tgttagttgag atacatgtcc gccccatccg tttcatagtc | 960 |
| 55 | tgaatcaaacc accggatcat tcottctctt taattccta aatgcctgat gcagttcaag | 1020 |
| 56 | caggacgggtt acatcatcgc gtttgattat ccgttctgtt gttcagctt tttgctcatt | 1080 |
| 57 | ctcatccatg attataggct acggattttg actaaaaagg tttccatctt catgagtcgt | 1140 |
| 58 | gtgttgcgg tggattacc taccggggga acataaaaaa atgagtcata aacagcgcac | 1200 |
| 59 | tgcatccacc gtggaccat gagacaacga gccggcagcg gtgcacagca ccgagttacaa | 1260 |
| 60 | ccccgcaatc gtcttatcca acgacctgccc ctatgaaaac tccagacggc tctctccgg | 1320 |
| 61 | gcatccagta cccatgtatg tgagaattct gactatctt ccgtgggtt ggcagttct | 1380 |
| 62 | caacgacggt attaccgagg tgattcatga taattttgtt gactggagta tactgaaaca | 1440 |
| 63 | tggattttgc cgcatgaat actgacagca ccagatctt aaattcttgc tcatcttcca | 1500 |
| 64 | gatcagttac ttttaaggca atccttttac attctctct cgatatgcgc cttccatgac | 1560 |
| 65 | tgtgatattt ttttagaggaa gacattattt ctgatattt ttttgactt tttaccgctg | 1620 |
| 66 | cagactcggtt ctcaaacatg tatctagccca gccattttt tacaagttcc acacttagct | 1680 |
| 67 | tctggctgtc aatgcatttt tgaatttagcc cgggaggata ttgccttaac agtggaaagcc | 1740 |
| 68 | atgcgcccgg cctcccccggg tgggtttctg acaccgactg tgcttcttgc aactcgctaa | 1800 |
| 69 | ttagaaactg tgcagacatt atgtgcattgc cggccttgtt tgaataataa aattgggggt | 1860 |
| 70 | cgggggacc tatcgatgag tggattaccat ttaaccggca attcgatgag catgcaagca | 1920 |
| 71 | tcgcagctgc cgacatcgcg gcatatggga taatgatccg gacattttta aattttgcac | 1980 |
| 72 | gtatgtatga gacgattgtc tcgggtggact cgacggagcc ccccgactg tggagtatta | 2040 |
| 73 | aatctaattt ctttgttccaa aatcacgca tcatccat aatccatac aggtcaccat | 2100 |
| 74 | ttgttatgag agtttcattta gacgtatgctt cttcgccgt tatccagttt gtgcatacaca | 2160 |
| 75 | gtattgtatc cttcccccggaa tactgttgca attttgaaag atagtcgtg agtactacac | 2220 |
| 76 | caggtgcctg ctcaccgact gactccattt gtcgaagtac gtcgttgcatttctgcgt | 2280 |
| 77 | aactaggcat ttatgtatgtt gaaatgacta cccggggaa tcataccata gtctgtcg | 2340 |
| 78 | tatgacttgc cttttttctt catcaatttc tcatatttccat catgcgttcc gagcaggatg | 2400 |
| 79 | gccatgtcac tacgtttgtt cgtctgtttt gttgtctcg gcttttggtc catattatta | 2460 |
| 80 | tccatgttag taaaggacta tggctttta aaaagggtcg tggatataat ttccaagtgt | 2520 |
| 81 | ttgcctcgca atttccatcca aggacatgaa aaaacggggcc acaggcagag cacagcatcc | 2580 |
| 82 | gctggggacc catgaaataa gccccccggcg gtgcacagca tccgctgggg gctcaataaa | 2640 |
| 83 | aaaatgagtc atcatgcata gtctctatgt aaatggctga accgggtttt tggtcgatta | 2700 |
| 84 | gtaaaggctg gtcaccact cgccgaagct tggggatac accaccccttcc tatcaacgca | 2760 |
| 85 | gtcttctct gcaacccctt atccgaagaa ggaatatctt gtctgggat aggattcg | 2820 |
| 86 | cttagatgtc ttccagcacatt agcctagatg gcttagctgc cccgcctgccc ctgtcggaca | 2880 |
| 87 | accggtagac cagtgccac gcctctctgt tccctctgtt ctaagagcga cttccctca | 2940 |
| 88 | gatattcgctt cttccatctg gcaaggccg acctgtctca cgacggtcta aacccagctc | 3000 |
| 89 | atgttccctt ttaataggcg agcagctca cccttggccc ctgctgcagg accaggatag | 3060 |
| 90 | gaaaagccga catcgaggtt ccaaaaccgcg gggtcgatag gagctctcgc ccgcgacgag | 3120 |
| 91 | cctgttatcc ctggggtaat tttctgtca cctccggcc ccaatagtgg gcacacgaa | 3180 |
| 92 | gatcgctaa gcaacttgc gtctatgtat tccgtcggtt tgaaatcca ttcaagtctag | 3240 |
| 93 | ttttggctt tgccctttc agcgattttc tgacccgctt gaactaaact ttggccccc | 3300 |

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| | | |
|-----|---|------|
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| 95 | tcttcaccgg gtaagtggca ctgcaggaaa tgtctgggt tacatcgccg tcccctgacg | 3420 |
| 96 | tcccaaagaa cgccaggaaa tgactcccag atacgtatg cactccctgc tataccacaa | 3480 |
| 97 | gcacaagctg cagtaaaact ccacggggtc ttctctccc gatggaagat gatggactgt | 3540 |
| 98 | tcgtccacct tatgtggctt caccgggtt taggcgggga cagtggggct ctcgttgttc | 3600 |
| 99 | cattcatgca cgtcgaaact taccgcacaa ggcatttggc tacctaaga gagtcagagt | 3660 |
| 100 | tactcccgcc gttAACCGT cttAGCTG gttGAACCCA agtttttagat accggcacccg | 3720 |
| 101 | gccaggattc agcgactata cataccctt cgggctagca gtcgcctgtg ttttattaa | 3780 |
| 102 | acagtgcggaa cccccttgc actgcaaccc gtcgcgcac ttccctatga cagctgcagg | 3840 |
| 103 | catcccttat acctaagcta caggactaat ttgccaatt ccctcgccat acggataacc | 3900 |
| 104 | cgtacccact tagttacta aaccagcgca cctgtgtcgg atctgggtac gaacttgcag | 3960 |
| 105 | tttgctagcc gcacggctt tcatggtctc ctggaatcgg gaaaactctg ctaacgc当地 | 4020 |
| 106 | gcactcccg cctcgggcct gttctcgta ttacgacact cccaggccct cgaacgggtc | 4080 |
| 107 | gacacgacga cggtcatgtt ccccctatcc ggaagcgaac catcggttc aaacgc当地 | 4140 |
| 108 | tgcaagggtac cagaatatta actggttcc cattcgact actctgttga ggcagtc当地 | 4200 |
| 109 | aggatcgact aactccaggc tgacgacgca ttgcctggaa acccttgc当地 ttacgggt | 4260 |
| 110 | gcggattctc accgcactat gctgtactg ccaccaggat ctgcaataga aatcggtcca | 4320 |
| 111 | caggacgtca cccctctgtc tcgtcccaat cactacgca acctaccacg gtgc当地 | 4380 |
| 112 | cacggtgac cgtctggagta tcgggtactct gcttagccc cgtccgttt tgc当地 | 4440 |
| 113 | tcgctcgac ggttaagggt tacacacttt ttgaaggata gctacttctg agcttaccc | 4500 |
| 114 | cctgtgtct tggcgatgac acgcacttg gctgacact tagcagaat ttgggac | 4560 |
| 115 | taactccagt ctgggttaaa cccctctcg tcgtgaacct tacgtcacac gaaccgc当地 | 4620 |
| 116 | ccatgcttct gcgtatgtta tcgc当地 tcggta gttgaatgg atgggtgagga atcttccc | 4680 |
| 117 | cgcgc当地 accccat tatcagtgtct ctaaccggaa caccatctcc acatgc当地 ccctcgag | 4740 |
| 118 | cgcttc当地 ggaaactagca agcgccagtc tagatgggt tttgaccctt attccaa | 4800 |
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| 121 | tcacacgctt ctc当地 cacaatgc当地 tgctgc当地 attcggtt cctc当地 cgc当地 | 4980 |
| 122 | ggcttaaccc cgc当地 catgaca gcaagc当地 tggccgtt ttc当地 gagacgg aacgc当地 | 5040 |
| 123 | actgacgaca tgagctccgg actttcagct ccattgc当地 aacctccgtt cc当地 | 5100 |
| 124 | cgtcttcat gccatgc当地 ctc当地 tgctgc当地 atagggttca tgc当地 ttcc | 5160 |
| 125 | cggggtaactt ttccatgc当地 ctc当地 acgtacact atc当地 ctgtt agagatattt | 5220 |
| 126 | agc当地 ttgtat gctacttca ccaatcttc当地 ctgc当地 cactg ccaaggacaa ctactcg | 5280 |
| 127 | gctggccctg cccatccca ctgc当地 tagtgggtatca cc当地 taacgc当地 cgg当地 | 5340 |
| 128 | cagaacactt caactatttcc ctggggccat tgccgc当地 caaaacacca catctcg | 5400 |
| 129 | gcgttaccgc ggc当地 gattca gttgggctt ttcccttcc gatgc当地 ctgtggaaa | 5460 |
| 130 | tctctattga ttctcttcc tc当地 ggtact aagatgc当地 aattccacg gtc当地 | 5520 |
| 131 | cgcttc当地 cgc当地 ggtatacag gattccattt cggaaatctc gggatcaacg ggtgc当地 | 5580 |
| 132 | cctacccgc当地 gcttacgc当地 gcttgc当地 accttcttcc ttccctcaacg ct当地 | 5640 |
| 133 | tcctattgcc gtc当地 ttacac cgc当地 catattc agccacatata tacacgacta tgc当地 | 5700 |
| 134 | tc当地 acgtc当地 cccaggggaa gggggccgct acatccctca tacaccactt gc当地 | 5760 |
| 135 | ttgc当地 caccatg caaagatcat gtgc当地 ttcttcc local gttcttcc ttgtcg | 5820 |
| 136 | ccgc当地 aggttcc cc当地 accttgc当地 gactttccc ttgtcgctt cctcaagttc | 5880 |
| 137 | gataacgc当地 attagacgctc acctcactaa aagcaaactt caatgaaacg acgggc当地 | 5940 |
| 138 | tgtgc当地 aggttcc gcaaggacgt attcactgc当地 cggtaatgac gc当地 ggttac taggattcc | 6000 |
| 139 | agattcgta gggcgagttt cagccctca gtc当地 aactgt gtagcg | 6060 |
| 140 | tcctcccttcc ggtatggaa cccattgtca ctaccattgc agccgc当地 tggccccc当地 | 6120 |
| 141 | gttccgggca atactgaccc gccgtggccc ttcccttcc cgc当地 attaaac tgc当地 | 6180 |
| 142 | ccgcttaattc gccccactgc tccggagagc aatgggttca actagaggca aggatctcg | 6240 |

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| 144 | ctcagttgt ctggtagagt cttcagcttg accttcacac tgctgtctct ccgggtaaga | 6360 |
| 145 | tttctggcgt tgactccaaat tgaaccgcag gttcaccccc ttgtggtget ccccccggca | 6420 |
| 146 | ttcccttaag tatcataactt gcgtacgtac ttcccaggcg gcaaacttaa cggctccct | 6480 |
| 147 | gcggcactgc actggctctt acgccaatgc atcaactgagt ttgcattgtt tacagctggg | 6540 |
| 148 | actaccggg tatctaattcc gtttgctcc cccagcttc atccctcacc gtcggacgtg | 6600 |
| 149 | ttcttagaga ccccttcgc cacagggggcatcgtataga tcagaggatt ttacccttc | 6660 |
| 150 | ctaccggaga cccgtctaccc ctcccactcc cttagccgtgc agtatttccg gcagcctatg | 6720 |
| 151 | cgttgagcgc atagattaa ccgaaaactt acacggcagg ctacggatgc tttaggccc | 6780 |
| 152 | ataatccctc tgaccacttgg aggtgtctgg tttaccggg cggctgacac cagaacttgc | 6840 |
| 153 | ccacccctta ttgcgggtg gtttaagac cggtaaaaga ttcttttagc agaaaaacact | 6900 |
| 154 | cggatttaacc ttgtcggtct ttgcacatt gcaaagtttt ctgcctgtct gcgccttata | 6960 |
| 155 | gggcctgggt cccgtctca gtacccatct cccggctct cctctcagag cccgtatctg | 7020 |
| 156 | ttatagcctt ggtggccat tacctacca acaagctgat agaccgcagt cccatccat | 7080 |
| 157 | ggcgataaaat catttggcc acaaaccatt ccaggcatag tggcttatcg gatattattc | 7140 |
| 158 | tcaagtccctt gaggttatcc cccgtccatag gttagattga ctacgtgtt ctgagccgtc | 7200 |
| 159 | tgccttgtat tgctacaatg actcgcatgg cttagtatca atccgatagc agtcaggtcc | 7260 |
| 160 | ggcaggatca accggattca taattggatt atttttttt ttttaagtagc gtttgactt | 7320 |
| 161 | ttggaattga acagaatgca cataatcttcc acatctcaga tatgaccctt cgatcatacc | 7380 |
| 162 | ctcattctgt gtgcgtact ggaggccagc gaatcacaat atggtacaat accatgcatt | 7440 |
| 163 | catcgcaago gccgctcttgc cgtcacgtac gatcgatcg gcccgtccat gggcatataa | 7500 |
| 164 | accatcgccg atttccgccc cccggcagccc cgatcagggg ccggatctgc ctgtatgatg | 7560 |
| 165 | gcgatccgccc ctgattaaat tatggggggat gcccgtctgt gccgtggatc tggAACGCGA | 7620 |
| 166 | gtacaggggca aagaccggcg gtcggcccg gatcttgcc aggtcgaaaa agtaccacgt | 7680 |
| 167 | cgccgggggtc agccacaaca taaggttcta cgagccgtat cccgttgcg caaggccgc | 7740 |
| 168 | gagcggcaag cacctcgctg acgtggacgg gaacaagttt gtagactact ggtatggca | 7800 |
| 169 | ctggagcctg atactgggc acgcgcggc gccagtcagg tcggcagtag agggcagct | 7860 |
| 170 | tgcggcggc tggatccacg ggaccgtcaa cgagcagacg atgaatctt cggagataat | 7920 |
| 171 | acgccccggcg gtaagcgtgg cagaaaaagac aaggtaacgtc acgtccgggat cggaggccgt | 7980 |
| 172 | catgtatgcg gcaaggctgg cccgcgcgc tacggcaga aaaataatag caaaggccga | 8040 |
| 173 | cggccgctgg cacgggtacg ctcggggct gctcaagtcg gtcaactgc cgtatgatgt | 8100 |
| 174 | gcccgagagc ggggggctcg tcgacgaaga gcactctata tccattccgt acaacgatct | 8160 |
| 175 | tgaaggttcc ctggatgttcc ttggggccgcg aggccacgc ttggcatgcg tgataatcga | 8220 |
| 176 | gccgctctg ggcggccggcg gtcgcatacc ggcggatgag gactatctgc gcccataca | 8280 |
| 177 | ggaggtttgtg cattcaaggg ggcgcgtctgt tgcctcgac gagatagtga cagggttccg | 8340 |
| 178 | gttttaggttt ggctcgccgt atgctgcagc agggctggac cccgatatacg tggcgctcgg | 8400 |
| 179 | caagatagtc gggggccggat tcccatagg ggtgatatgc gcacaggacg aggtgatgg | 8460 |
| 180 | aatctccaaac actataatcgc atgcaagtc cgacaggccg tacatccggc gcggcacatt | 8520 |
| 181 | ctctgc当地 cccgc当地 tgc当地 cggccgagc ctcggggagc tcaaaaagag | 8580 |
| 182 | aaaggccaca atatacccg ggataaactc catggggac gacgcaagg acaagctctc | 8640 |
| 183 | aaagatattt gggAACAGGG tatccgtgac cggaaaggccc tgcgtttca tgactca | 8700 |
| 184 | tgttcaagat ggcgc当地 gggctcaaa tgctgcagat gcccgc当地 gcatgttga | 8760 |
| 185 | gctgc当地 aggtaccacc tggacatgat caccgggac ggc当地 ttc当地 cggg | 8820 |
| 186 | caagctgggg gccatatcg cggccgactc aaaggccgac ctcaagacca tgc当地 cggc | 8880 |
| 187 | atcagagcgc tttgc当地 ag gcttatgagg tatagccgc gaggaaactt tgattatacg | 8940 |
| 188 | ggcgtctgc cccggggccc atgatactct tcggcaagag cggccccc当地 gagctggc | 9000 |
| 189 | gccaggccgc cccctgtgc agcaagaacc agttcaggc ggc当地 taggc ctgtacgg | 9060 |
| 190 | aaatccctcaa ggacgacccg cagaacaggc gctgtctgca caaaaagggg ctggccaga | 9120 |
| 191 | acaggccaaa aaagtactct gatgc当地 cgtgatcc cccgtctgc gagcttgaca | 9180 |

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| | | |
|-----|--|-------|
| 192 | acaaggacgc gcccgcgtac aacaacaagg ccatagccca ggccgagctc ggagacacgg | 9240 |
| 193 | catccgcgtc gaaaaactac ggcagggccca tcgaggccga cccgcgggtac gcgcggcg | 9300 |
| 194 | gcttcaacag ggccgtgctg ctcgacaggc tggcgagca tgaggaggcg ctgcggacc | 9360 |
| 195 | tcgacaggc agccgagctg gaccgacgca agccgaaccc gaggttctac aaggggatag | 9420 |
| 196 | tgctcgccaa gatgggcagg cacgaagagg cgctggctg cttcaaggc gtgtgcaaga | 9480 |
| 197 | ggcatcccg ccacggcgc tcacagttcc acgtgggat agagtttacc gagcttggca | 9540 |
| 198 | ggcacggcga ggcctcggg gagcttgcatt cactgcccgc ggagcacccg gagaacgcca | 9600 |
| 199 | atgtattgtat tgccaggcg cgccgcctt cgggccttgg cagggaggac gaatccatag | 9660 |
| 200 | cgcacctgca aaaggccggcc aaaaaagatt ccaagacgat aaaaaagtgg gcccgcgcag | 9720 |
| 201 | aaaaggcctt tgacggaata cgggacgatc cgggttcaaa aagatagccg gctagaggat | 9780 |
| 202 | ctttttctt gccgcgtcaa tccgcattcat gcggaccttt ttttggcc ccacaagtgc | 9840 |
| 203 | cgattcatag actggatcat agaccaccc caccgcctt gcccggaaact cctccgcag | 9900 |
| 204 | gtcgcgcgtg ccgtcaggcg gggcccgcg cagcttctt ttagtttg agagegcetc | 9960 |
| 205 | ttctgtctcc acctcggggc tccgcacatt ctctgacgca tcgagttatcc tccgcggta | 10020 |
| 206 | cggctccacc ggcggggcc cccgttgc gggaaagtcc gtctcgccgc cgtccggc | 10080 |
| 207 | aaggcacatc atccctctg attccgcaaa gacatgtct tctagctca ggtgcaccct | 10140 |
| 208 | gttcttgcg agccctgcg agagcgttgc ttgtatgcgc gacttggacc ttatggaaa | 10200 |
| 209 | gacgcgtcg cctagccacca cctcgatcac gttcttgcg accttgcgtc ggtgaaccgc | 10260 |
| 210 | ctttctgaaa aaatccgcg agtacctggc ggagacccgg atcagcgcct cgtggaccag | 10320 |
| 211 | ctttacagaa tgcacatggc cgttcttgc cccggggcc ctcataaggc ccctaaaggc | 10380 |
| 212 | accgcgttcc tttgcctcta tcatggcccg agccgactcc tcagtcatgg cgttccgcag | 10440 |
| 213 | gaccgcgtc ctggcttgc cagtcattccc ctgcgcacc cccgcataagg catactatac | 10500 |
| 214 | aacgcaggc aaggtataaa tagcctgcg tctgttaacgg cctgtatgagg tcggaggcga | 10560 |
| 215 | ggcccgata catcgaaaag ttccctaaaga gggcgacaa ggcgtatagac aatgcagtgc | 10620 |
| 216 | agcaggcgt caagaggcga gacgagatac tagatgacgc agtcgagctc ggcaagatca | 10680 |
| 217 | ccgtggcga ggcgcaaaaa agaagcgatg tgctgtcaa gcaggccgag cgggagagca | 10740 |
| 218 | agcggctcaa gtcaaggggc gccaaaaagc tcgaaaaggc catagggcg gcaaaaaaga | 10800 |
| 219 | tggcagccgg caagggcgac ggcgttagaga ccctggcaaa gtcggcgag ctgagaaagg | 10860 |
| 220 | cggggatcat aacggagaag gagttcgcg ccaagaaaaa gaagtttcc tcgaggatct | 10920 |
| 221 | gacttgaagc cgctagacta taccgggac ggctcgataa aggaggtcac aaagaggtgg | 10980 |
| 222 | tttataggca cgcgtccct tgcgtacattt gcaggcgagc tcggcatatc tgagagcaac | 11040 |
| 223 | atattccacg tgacatttcc cgacggcgc aagaccaccc tgcatacgcg cggggcg | 11100 |
| 224 | cagctgctca tagtgaccc tcggcaccggc agcatgtcaa tatttgaaaa gaccggcgga | 11160 |
| 225 | ggcgaggcgg aatttgcatt aaaagagaca gacaggatac cgctaaagca gggcagcatc | 11220 |
| 226 | cagtagatac ctgcggcgt gtcacgtgc acggcgcac agacggcacc accctgtccc | 11280 |
| 227 | atatacggt aaactacccg tgcctatcg gaaaggagcc gtatacatta tggatgaaat | 11340 |
| 228 | ccgacttgc cagccggc accggcgtc tgtaaattat attatttgag ccttcaggat | 11400 |
| 229 | atcgacaggg ttacaagggtt ggtcatcgat atcccttgc ggatcacttc cttcttagtc | 11460 |
| 230 | ttttcgactt acttgttgc gctctgggg ctctttcgc tggataccctc gagcaccaca | 11520 |
| 231 | atgttccgcg tgtacggaa ggcacaaactt ggcggaatcc tcgagcatac atccatgcgc | 11580 |
| 232 | cctattcccg ccctgcctat cttctccctt ctgcgcacta cccgcgcac ctcgcgtatg | 11640 |
| 233 | tcctccctgg aatctccgtt ttccagatag tacatggata catagctcat cccggggat | 11700 |
| 234 | tcccttcga atatctccctc gtcctatgtc aataaatagg aaggccgc cccgcggccc | 11760 |
| 235 | tccaccgcct ttatcatttt gggccgtt ttgaaccttgc ccagcaggta gtggctggcc | 11820 |
| 236 | tgtgtctaa agtacggctt gttttggac gagaaggatgg cggtcacaaa gtacatctcg | 11880 |
| 237 | cctacgttcc tcgacgagga ccattccctc ttgagctcta tcgaggcatg gtcgtgcgtg | 11940 |
| 238 | tatggcggtc aggcatatcc cccccggggag gcctccgtt tggacatgca tggatccgc | 12000 |
| 239 | ggaacgggtt aatatctagt tccatgccc cttggggggc gggggccccc cctgtggccg | 12060 |
| 240 | gccccggggc aggctgcgt ggatccatgc gatagttatt taaaactagg atgcgcata | 12120 |

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/027,801

DATE: 02/28/2002

TIME: 10:23:55

Input Set : N:\Crf3\RULE60\10027801.raw.txt
Output Set: N:\CRF3\02282002\J027801.raw

L:9 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:7288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120